

Chip NTC Thermistor

ABNTC-0603

RoHS/RoHS II Compliant



1.6 x 0.8 x 0.8 mm

FEATURES:

- Large B constant for high temperature sensing capability
- Designed for high density
- Available in standard EIA compatible case size
- Internal electrode designed for enhanced reliability
- Excellent aging stability

APPLICATIONS:

- For temperature measurement or sensor: Digital thermometer, measuring instruments, temperature controller
- For temperature compensation: transistor circuit, TCXO, Crystal Oscillator
- LED lighting driver, Notebook, Cell Phone, Power Supplies, Disk Drive

STANDARD SPECIFICATIONS:

Operating Temperature: -55°C ~+125°C

Storage Temperature: -10°C ~ +40°C and RH 75% (Max.)

Part Number	Resistance at 25°C R25 (kΩ)	R25 Tolerance	B constant (25-50 °C) (K)	B Tolerance	Max. Permissible Operating Current (25 °C) (mA)	Thermal Time Constant	Dissipation Factor (mW/ °C)	Rated Electric Power (mW)
ABNTC-0603-472Δ-3950□	4.7	H, J, K	3950	H	0.46	<5sec	1.0	100
ABNTC-0603-502Δ-3950□	5.0	H, J, K	3950	H	0.44			
ABNTC-0603-682Δ-3950□	6.8	F, H, J, K	3950	F, H	0.38			
ABNTC-0603-103Δ-3450□	10	F, H, J, K	3450	F, H	0.31			
ABNTC-0603-103Δ-3950□	10	F, H, J, K	3950	F, H	0.33			
ABNTC-0603-153Δ-3950□	15	H, J, K	3950	F, H	0.25			
ABNTC-0603-223Δ-4050□	22	F, H, J, K	4050	H	0.21			
ABNTC-0603-333Δ-4050□	33	F, H, J, K	4050	F, H	0.17			
ABNTC-0603-473Δ-4150□	47	F, H, J, K	4150	F, H	0.14			
ABNTC-0603-503Δ-4150□	50	F, H, J, K	4150	F, H	0.13			
ABNTC-0603-683Δ-4150□	68	F, H, J, K	4150	F, H	0.12			
ABNTC-0603-104Δ-4250□	100	F, H, J, K	4250	F, H	0.10			

Δ: Please specify the tolerance code of R25 (F=±1%, H=±3%, J=±5%, K=±10%).

□: Please specify the tolerance code of B value (F=±1%, H=±3%).

Test Conditions

Unless otherwise specified, the standard atmospheric conditions for measurement/test as:

- Ambient Temperature: 20±15°C
- Relative Humidity: 65±20%
- Air Pressure: 86 kPa to 106 kPa

Chip NTC Thermistor

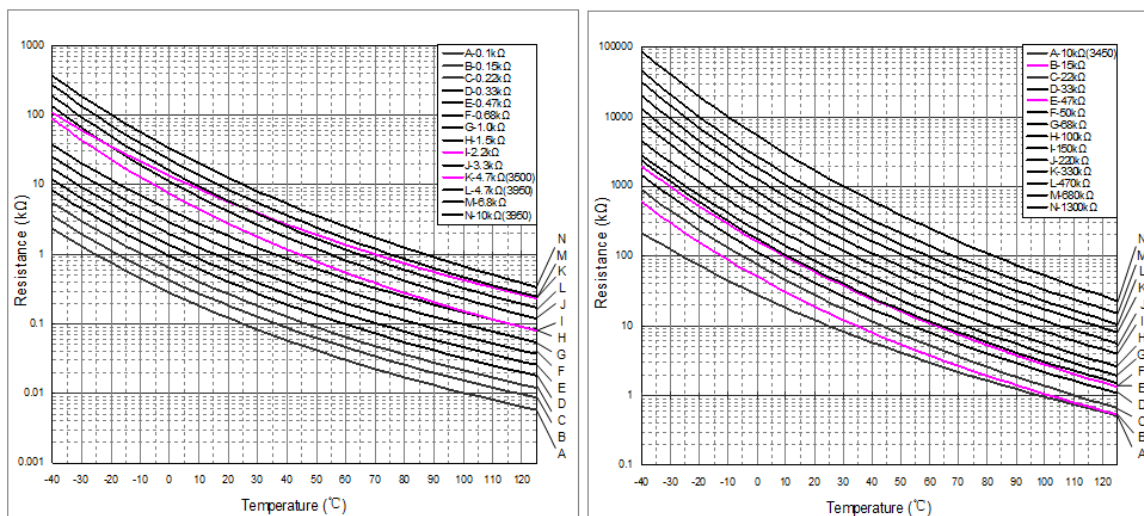
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1.6 x 0.8 x 0.8 mm

ELECTRICAL CHARACTERISTICS CURVES



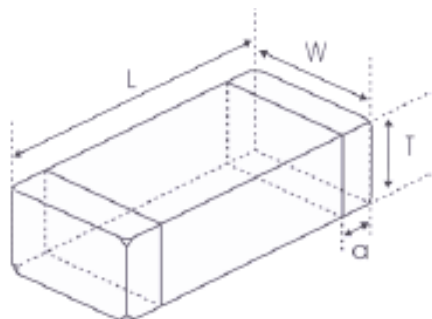
OPTIONS AND PART IDENTIFICATION:

ABNTC-0603- - - T

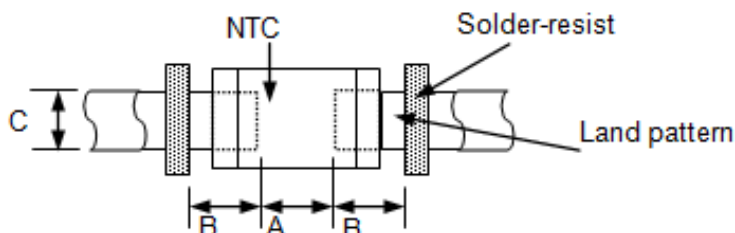
R25 Code	R 25 Tolerance*	B Constant	B Tolerance*	Packaging
Please refer to the table above	F=±1%	Please refer to the table above	F=±1%	T: Tape and Reel (4kpcs / reel)
	H=±3%		H=±3%	
	J=±5%			
	K=±10%			

* Please Reference electrical specifications table for available tolerances for each varistor combination.

OUTLINE DIMENSION:



Recommended Land Pattern



L	W	T	a
1.6±0.15	0.8±0.15	0.8±0.15	0.3±0.2

A	B	C
0.60~0.80	0.60~0.80	0.60~0.80

Dimension: mm

Chip NTC Thermistor

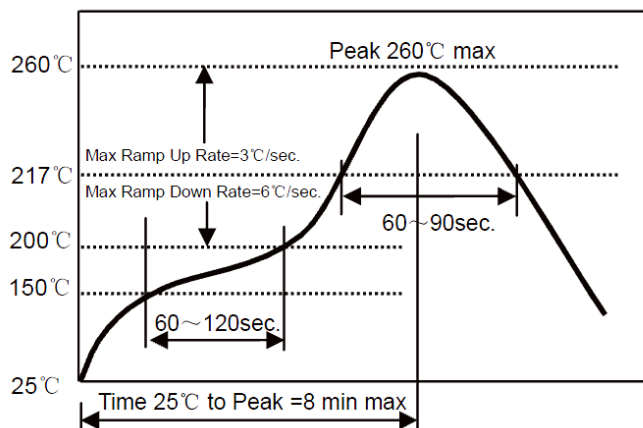
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REFLOW PROFILE:



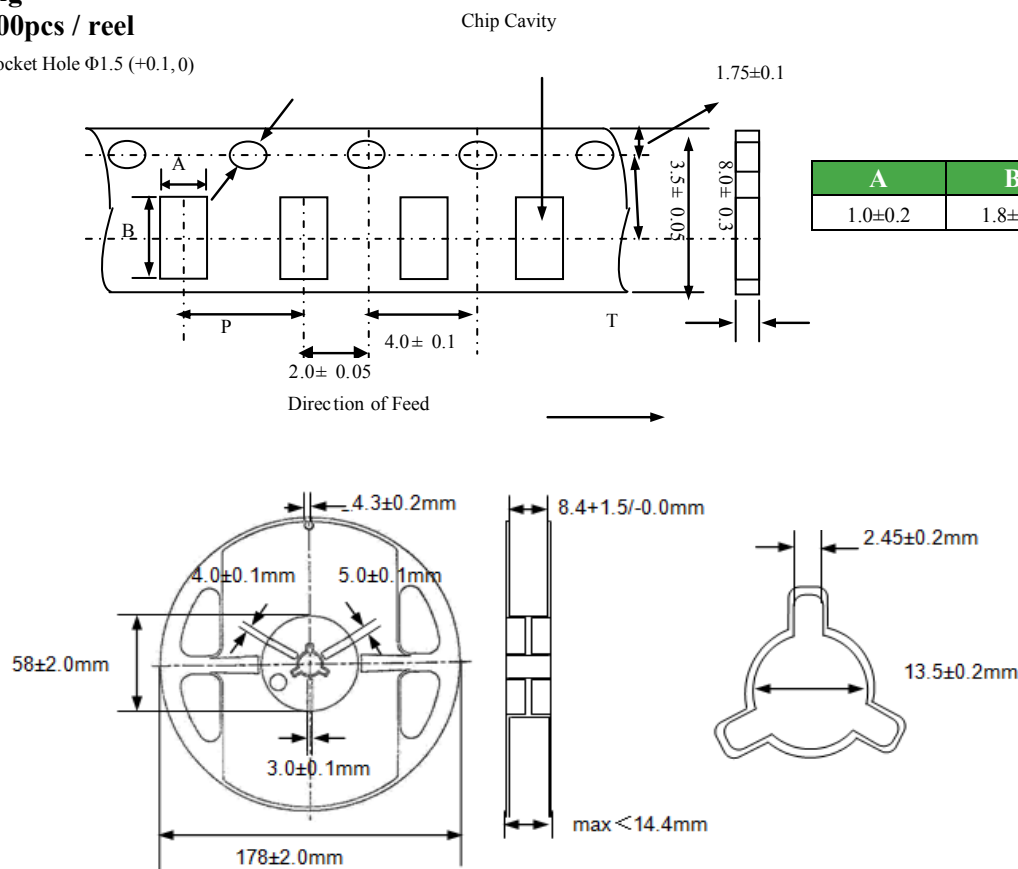
Preheat Condition	150 to 200 °C; 60 to 120 sec.
Allowed time above 217 °C	60 to 90 sec.
Max temperature	260 °C
Max time at max temperature	10 sec.
Solder paste	Sn/3.0Ag/0.5Cu
Allowed Reflow time	2x max.

TAPE & REEL:

Packing

T: 4,000pcs / reel

Sprocket Hole $\Phi 1.5 (+0.1, 0)$



A	B	P	T (max)
1.0±0.2	1.8±0.2	4.0±0.1	1.1

Dimension: mm

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Mouser Electronics

Authorized Distributor

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ABRACON:

<u>ABNTC-0603-333J-4050F-T</u>	<u>ABNTC-0603-152J-3450F-T</u>	<u>ABNTC-0603-302J-3950F-T</u>	<u>ABNTC-0603-472J-3500F-T</u>
<u>ABNTC-0603-473J-4150F-T</u>	<u>ABNTC-0603-151J-3380F-T</u>	<u>ABNTC-0603-102J-3450F-T</u>	<u>ABNTC-0603-332J-3950F-T</u>
<u>ABNTC-0603-471J-3450F-T</u>	<u>ABNTC-0603-502J-3950F-T</u>	<u>ABNTC-0603-153J-3950F-T</u>	<u>ABNTC-0603-223J-4050F-T</u>
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<u>ABNTC-0603-472J-3950F-T</u>	<u>ABNTC-0603-684J-4500F-T</u>	<u>ABNTC-0603-682J-3950F-T</u>	<u>ABNTC-0603-101J-3380F-T</u>
<u>ABNTC-0603-503J-4150F-T</u>	<u>ABNTC-0603-135J-4700F-T</u>	<u>ABNTC-0603-103J-3450F-T</u>	<u>ABNTC-0603-104J-4250F-T</u>
<u>ABNTC-0603-224J-4350F-T</u>	<u>ABNTC-0603-222J-3950F-T</u>	<u>ABNTC-0603-683J-4150F-T</u>	<u>ABNTC-0603-221J-3450F-T</u>
<u>ABNTC-0603-154J-4300F-T</u>	<u>ABNTC-0603-681J-3450F-T</u>		